

STUDIES ON THE FAUNA OF SURINAME
AND OTHER GUIANAS: No. 35.

SYRPHIDAE FROM SURINAME

Additional records and descriptions

by

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(Baarn, Nederland)

This study is intended as a continuation of the "Preliminary List of Syrphidae" published in volume V of this journal. As no further information on the Syrphid flies of the other Guianas has come to my knowledge these countries can be left out of consideration here.

Since the dispatch of the manuscript of the "Preliminary List" to the editors several species not yet known from Suriname have been received. Once again a large part of these flies were collected by my son Drs. P. H. VAN DOESBURG junior. Dr. D. C. GEIJSKES, Director of the Suriname Museum, Paramaribo, has also sent me big lots of Syrphids in which many interesting species were represented. To both gentlemen I wish to express heartfelt appreciation. Moreover my son deserves special thanks for interrupting his own demanding work to produce the beautiful, exact illustrations.

Many specimens sent by Dr. GEIJSKES have been collected by the use of a "*Malaise trap*". It is evident that these traps are very useful for the collecting of Syrphid flies too, especially the small species which could otherwise easily be overlooked in a dense, tropical forest, e.g. *Mesograptia*, *Ubristes*, *Neplus* spp. We are also indebted to this trap for the very small specimens of *Ubristes puerilis* n. sp. and *Ceratophya minutula* n. sp.

In contrast to the "Preliminary List" each species recorded below is followed by a reference to its original description. At the end of the study an extensive, general literature list is given.

TABLE 1

GEOGRAPHICAL DISTRIBUTION OF THE SYRPHID SPECIES RECORDED FROM SURINAME

[illegible]

[illegible]

Species	Suriname	British Guiana	Guyane Française	West Indies	México	Guatemala	El Salvador	Panamá	Venezuela	Colombia	Ecuador	Perú	Brasil	Bolivia	Paraguay	Argentina	Uruguay	Chile	Also known from:
— <i>hortorum</i>	x			x															
— <i>inversa</i>	x	x																	
— <i>langi</i>	x	x																	
— <i>mus</i>	x	x			x														
— <i>nigripes</i>	x	x																	
— <i>obsoluta</i>	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	
— <i>penalis</i>	x	x																	
— <i>precipua</i>	x	x										x	x						
— <i>pygmaea</i>	x	x																	
— <i>rufiventris</i>	x	x			x	x	x	x	x	x				x	x	x			
— <i>scutellaris</i>	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	
— <i>spectabilis</i>	x	x							x										
— <i>vinclorum</i>	x	x		x	x	x													
<i>Meromacrus brunneus</i>	x	x																	
— <i>fulvus</i>	x	x																	
— <i>niger</i>	x	x						x				x	x						
— <i>pratensis</i>	x	x																	
<i>Lycastirrhyncha quinta</i>	x																		
total	140																		

N.B.: A totally filled row does not mean that the species is recorded from every country mentioned, but that it has a wide distribution from "México to Chile".

The abbreviations and symbols are the same as used in the "Preliminary List". The symbol + before a species name has been omitted since all of the species mentioned are in the author's collection. The new abbreviation: "PL : 6" refers to the "Preliminary List", page 6, where the species in question was already recorded from Suriname. "K (or C) 8" = Camp 8, Mapane area, Commewijne district.

Subfamily SYRPHINAE

Genus *Allograpta* Osten-Sacken

Allograpta aperta Fluke

FLUKE 1942, Amer. Mus. Novit. 1201: 19, fig. 48.

SURINAME! 2 ♂, Wilhelmina Mts., Camp 3, 3.8.1963 (H. Pijpers coll.).

These two males agree exactly with the description except that there is an oblique, short, narrow, yellow spot in the hind corners of the 2nd abdominal segment. The spots upon the third segment are oblique, their bases are widely separated and touching the base of the segment. I should like to call this variety *notata*.

FLUKE's holotype, a single male, was from British Guiana, Kaieteur, Savannah, and is in the British Museum.

Allograpta obliqua (Say)

SAY 1823, J. Acad. Phil. 3: 89 (*Scaeva obliqua*).

SURINAME! 1 ♂, Dirkshoop, Paramaribo, swept in 1962 (no further date).

North and South America, but to my knowledge not yet recorded from one of the Guianas.

To the long list of references given in FLUKE's Catalogue may be added: SACK 1921, Arch. Naturg. 87: 130 (Paraguay), and SACK 1928, Konowia 7: 183 (Paraguay, Bolivia).

Allograpta scutellata Sack — PL : 6

SACK 1941, Beitr. Fauna Perus I: 99; 1951, id. II: 95. From the 1941 edition all but six copies were destroyed in the war; the work was re-issued in 1951 as Vol. II, with the same text but removed pagination.

Genus **Mesograpta** Loew

Mesograpta basilaris (Wiedeman) — PL : 6

WIEDEMAN 1830, Auss. Zweifl. Ins. 2: 143 (*Syrphus*).

var. **flavocunea** Hull

HULL, 1940, J. Wash. Acad. Sci. 30: 433.

SURINAME! 1 ♀, Charlesburg, near Paramaribo, 29.4.1963; 1 ♀, Mapane area, Camp 8, 28.5.1963.

Mesograpta confusa (Schiner) — PL : 6

SCHINER 1868, Reise Novara Dipt.: 349 (*Mesogramma*).

Mesograpta costalis (Wiedemann) — PL : 6

WIEDEMANN 1830, Auss. Zweifl. Ins. 2: 140 (*Syrphus*).

Mesograpta duplicata (Wiedemann) — PL : 7

WIEDEMAN 1830, Auss. Zweifl. Ins. 2: 142 (*Syrphus*).

Mesograpta floralis (Fabricius) — PL : 7

FABRICIUS 1798, Suppl. Ent. Syst.: 563 (*Scaeva*).

Mesograpta funesta n. sp.

Fig. 56

Thorax, scutellum and abdomen shining black; mesonotum without yellow lateral margins; abdomen with twelve dull, velvet-black spots.

Female — Length about 5 mm. *Head*. Vertex and upper half of front shining black with cupreous reflections; lower half of front less shining, irregularly wrinkled, narrowly bordered by white pollen upwards along the eyes to level of the front ocellus. Ocellar triangle equilateral. Face reddish in ground color, heavily dusted by white pollen, the pubescence very short; the very broad, median, black vitta is connected with the black of the front and reaches the

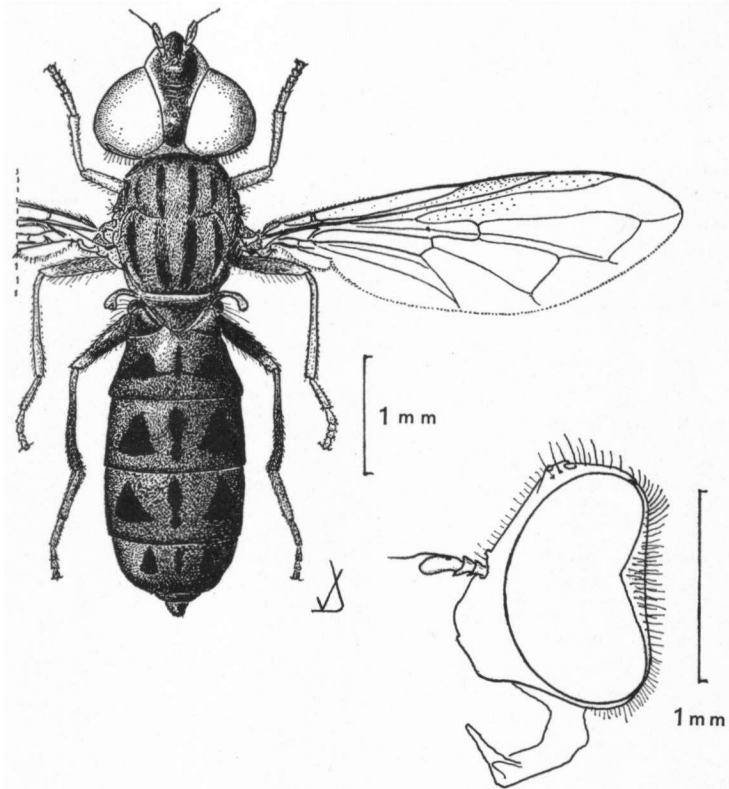


Fig. 56. *Mesograpta funesta* n. sp. from SURINAME, paratype, ♀.

oral margin. Facial tubercle moderately large but only slightly projecting. Lower occiput strongly dusted by grey pollen. Antennae orange, the arista blackish. Cheeks narrow, blackish. Proboscis projecting, black with reddish tip.

Thorax shining black, the humeri a little paler, the suture between mesonotum and pleurae very narrowly reddish. Disc of mesonotum with three broad vittae of greyish pollen leaving four, less wide vittae shining black. Sternopleurae below with a large, circular, white pollinose spot which is connected with a broad, vertical, white pollinose band on the mesopleurae ending at level of the wing-base. Scutellum triangular, the tip rounded, the disc slightly rugose, the extreme lower margin indistinctly reddish. Thorax with sparse,

short, white pile, somewhat longer upon the hind portion of the mesonotum and upon the scutellum.

Abdomen dorsally shining black with steel-bluish reflections; the second, third, fourth and fifth segments each with three opaque, velvet-black spots. The medial spots are longitudinal, slender; the side spots are large and triangular in shape. In the type-specimen the side-spots of the second segment are connected with the medial spot by a narrow, black line; these spots are isolated in the paratype-specimens. Sixth and seventh segment visible, shining black, together forming a narrow tip. Venter shining black, the posterior margins of segments three and four narrowly red. Abdominal pile sparse, white, rather long.

Legs. Coxae mostly black; femora brown, the apices broadly yellow; fore and middle tibiae yellowish white, their tarsi yellow. Hind tibiae brown, the base yellow, their tarsi light brown. All of the legs with short, black pile.

Wings hyaline, somewhat iridescent, the whole surface villous, also the costa and the hind margin with microscopic villi. Veins brownish-yellow. The basal two-thirds of the first vein is situated above level of the sub-costal vein. Alulae normal. Squamae and halteres wholly pure white.

Holotype ♀, Zanderij, SURINAME, 8.5.1963 (P. H. van Doesburg jr.); paratypes: 1 ♀, Sipaliwini, 8.6.1963 (same collector); 2 ♀, Belém, Pará, BRASIL (E. Horvath).

Mesograpta laciniosa (Loew) — PL : 7

Fig. 57

LOEW 1865, Berl. Ent. Ztschr. 9: 159 (*Mesogramma*).

SURINAME. Several specimens received since 1960 show that the species is rather common in Suriname. The abdominal markings are constant in the females; in the males these markings are apt to become ill-defined by the expansion of the yellow colour. In one couple in copula from Afobaka, 26.6.1964 (Geijskes), the sub-apical black band on the hind femora is well developed in the male, but hardly visible in the female.

Mesograpta lacrymosa Bigot

BIGOT 1884, Ann. Soc. ent. France: 108.

SURINAME! 1 ♀, Mapane area, K. 8, 28.5.1963.

México, Brasil; till now not yet recorded from the Guianas.

The original spelling *lacrymosa* was corrected by KERTÉSZ into *lacrimosa*. ALDRICH

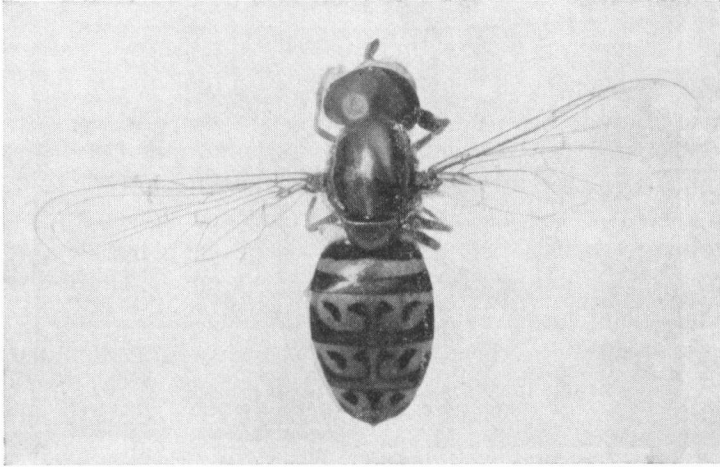


Fig. 57. *Mesograpta laciniosa* (Loew) from SURINAME, ♀.

changed the specific name into *lachrymosa* and was herein followed by HULL and FLUKE.

Mesograpta maculata Bigot — PL : 7

BIGOT 1884, Ann. Soc. ent. France: 111.

Mesograpta marginata (Say)

SAY 1823, J. Acad. Phila. 3: 92 (*Scaeva*).

SURINAME! 1 ♂, Paramaribo, 6.2.1960 (van Hoof).

North and Central America. The above specimen seems to be the first one recorded from South America.

Mesograpta musica (Fabricius) — PL : 7

FABRICIUS 1805, Syst. Antl.: 253 (*Scaeva*).

Mesograpta nymphalia Hull

HULL 1942, Psyche 49: 106.

SURINAME! 2 ♀, Sipaliwini, 9 and 13.6.1963.

Described from Ecuador.

Mesograpta picta (Macquart) — PL : 8

MACQUART 1842, Dipt. Exot. 2, 2: 99 (*Syrphus*).

Mesograpta polita (Say) — PL : 8

SAY 1823, J. Acad. Phila. 3: 88 (*Scaeva*).

Mesograpta producta (Curran) — PL : 8

CURRAN 1930, Amer. Mus. Novit. 405: 5 (*Mesogramma*).

Mesograpta taenia (Curran)

CURRAN, 1930, Amer. Mus. Novit. 405: 7, fig. 3 (*Mesogramma*).

SURINAME! 1 ♂, Mapane area, K. 8, 28.5.1963.

Panamá, Venezuela, Perú, Trinidad, Puerto Rico.

Genus **Baccha** Fabricius

Baccha atypica Curran

Fig. 58

CURRAN 1930, Amer. Mus. Novit. 403: 10.

SURINAME! 2 ♀, Mapane area, K. 8, 30.5.1963.

This beautiful, large species is readily distinguished by its strongly spatulate abdomen and the somewhat elongate antennae whose segments are of almost equal length.

CURRAN's holotype, female, came from Chapada, Brasil, the allotype male was from Amazonas, Brasil. CURRAN gives as synonyms *Baccha conjuncta* Williston (nec

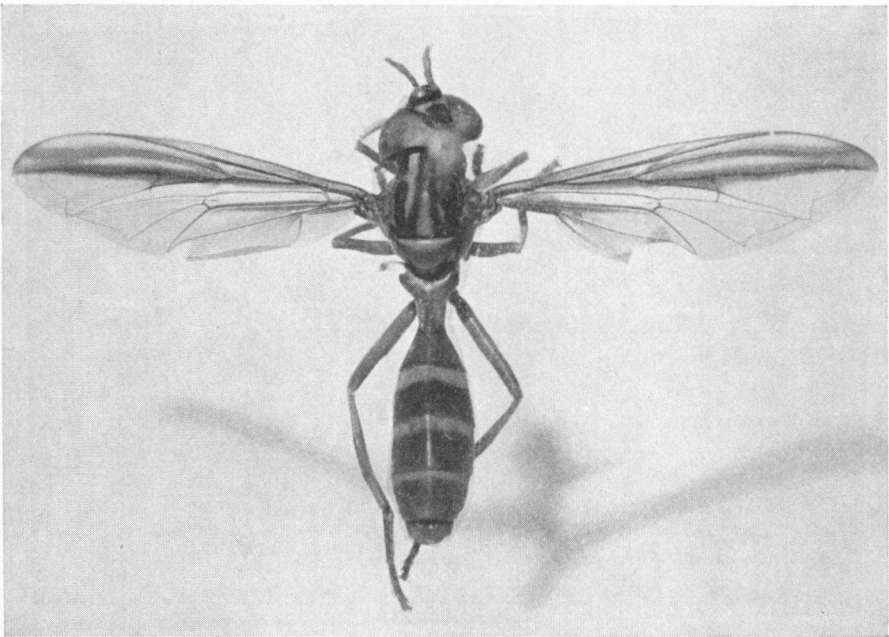


Fig. 58. *Baccha atypica* Curran from SURINAME, ♀.

Wiedemann) and *B. conjuncta* Hine (nec Wiedemann). WILLISTON recorded the species from México and Brasil, HINE from British Guiana.

For this aberrant form of *Baccha* HULL (1943d) erected the sub-genus *Therania*.

***Baccha bigoti* Austen**

AUSTEN 1893, Proc. Zool. Soc. London 1: 147 (nom. nov. for *Baccha apicalis* Bigot, nec Loew).

SURINAME! 1 ♀, Sipaliwini, 8.6.1963.

Brasil, Perú, Panamá.

***Baccha braziliensis* Curran**

CURRAN 1939, Amer. Mus. Novit. 1041: 9.

SURINAME! 2 ♀, Mapane area, K. 8, 28.5.1963.

Described from Brasil.

***Baccha callida* Hine — PL : 9**

HINE 1914, Ohio Nat. 14: 335.

***Baccha clavata* (Fabricius) — PL : 9**

FABRICIUS 1794, Ent. Syst. 4: 298 (*Syrphus*).

***Baccha cordelia* Hull**

HULL 1947, Ent. Amer. 27: 186.

SURINAME! 1 ♀, Auca on Suriname River, 27.5.1963.

Described by HULL after a female from Pucallpa, Perú. Our specimen agrees exactly with the description.

***Baccha crocata* Austen — PL : 9**

AUSTEN 1893, Proc. Zool. Soc. Lond. 1: 155, fig.

***Baccha crocea* Austen — PL : 9**

AUSTEN 1893, Proc. Zool. Soc. London 1: 157, fig.

***Baccha cultrata* Austen — PL : 9**

AUSTEN 1893, Proc. Zool. Soc. London 1: 152, fig.

SURINAME: 3 ♂, Republiek, 6.12.1959, 13.11.1960 and 6.8.1961; 4 ♀, Republiek, 6.12.1959, 26.12.1962, 31.3.1963 and 6.5.1963. Also: 2 ♂, 19.10.1963 and 23.11.1963 (Geijskes).

With regard to the above series it may be mentioned that the yellow abdominal markings are somewhat variable in *cultrata* and liable to extend over the darker portions of the ground-colour. Sometimes this extension is so pronounced that the original dark ground-colour of the third and fourth segments is barely perceptible, except for the brown posterior fascia.

In the male the pattern of the abdominal markings is different from that in the female. This is clearly illustrated in plate V of AUSTEN's study (figs. 8 ♂ and 9 ♀). In fig. 8, however, the fifth abdominal segment has only two yellow vittae. In all of my male specimens there is another yellow stripe between the sub-medial vitta and the lateral margin as described for the female by AUSTEN.

The particulars of the five females recorded above agree exactly with AUSTEN's description of the ♀ *cultrata*. The five males answer to HULL's description of the ♂ *pictula*, but because they are from the same locality and in one case even of the same date as the females, the writer has come to the conclusion that they belong to the same species.

The incomplete and ill-defined brownish band near the tip of the hind femora is sometimes present, but more often absent.

***Baccha diffusa* Curran**

CURRAN 1939, Amer. Mus. Novit. 1041: 4.

SURINAME! 1 ♂, Mapane area, K. 8, 28.5.1963; 1 ♂, Republiek, 8.6.1963. Moreover 6 ♂, Wilhelmina Mount., K. 3, 3/17.8.1963, "flying to and fro in the forest" (S. Ligorie).

Though CURRAN described one female only from São Paulo, Brasil, I believe these males to be identified correctly since they fit in very well with CURRAN's description, with HULL's drawing of the female (1949b, fig. 238) and with a male in our collection from Nova Teutonia, Brasil (F. PLAUMANN). The abdominal markings are much like those of *flavipennis* Wied., but the second abdominal segment is longer, its sides are not so deeply excised and its markings are more oblique. In *flavipennis* they are nearly horizontal. In some specimens the median abdominal vittae have a faint tendency to be broken up into spots, especially upon the third segment. This seems to be a common character of *B. pennata* Hull from Panamá which, however, has the base of the anterior femora, and the whole of the hind femora black coloured and the abdominal spots widely isolated.

***Baccha dimidiata* (Fabricius) — PL : 9**

FABRICIUS 1781, Spec. Insect. 2: 434 (*Syrphus*).

var. *rufifacies* var. nov. — Quite similar to *dimidiata* typica, but the face lacks the median black vitta; the median black of the scutellum is reduced and rather indistinct.

SURINAME! 2 ♂, Paramaribo, 15.9.1958 and 21.4.1960; 3 ♀, Paramaribo, 3.6.1957, 10.9.1958 and 27.4.1963; 1 ♀, Republiek, 20.12.1962; the latter specimen "on an inflorescence of a *Piper* spec." Also 2 ♀ from Paramaribo, Kwatta, 1 & 24.2.1964; and 2 ♀ from Ma Retraite, 22.1.1964 and 24/27.2.1964 (Geijskes).

Among my material of *B. dimidiata* (20 ♂, 37 ♀) there are also intermediates between the typical form and var. *rufifacies*.

***Baccha fervida* Austen — PL : 9**

AUSTEN 1893, Proc. Zool. Soc. London 1: 158, fig.

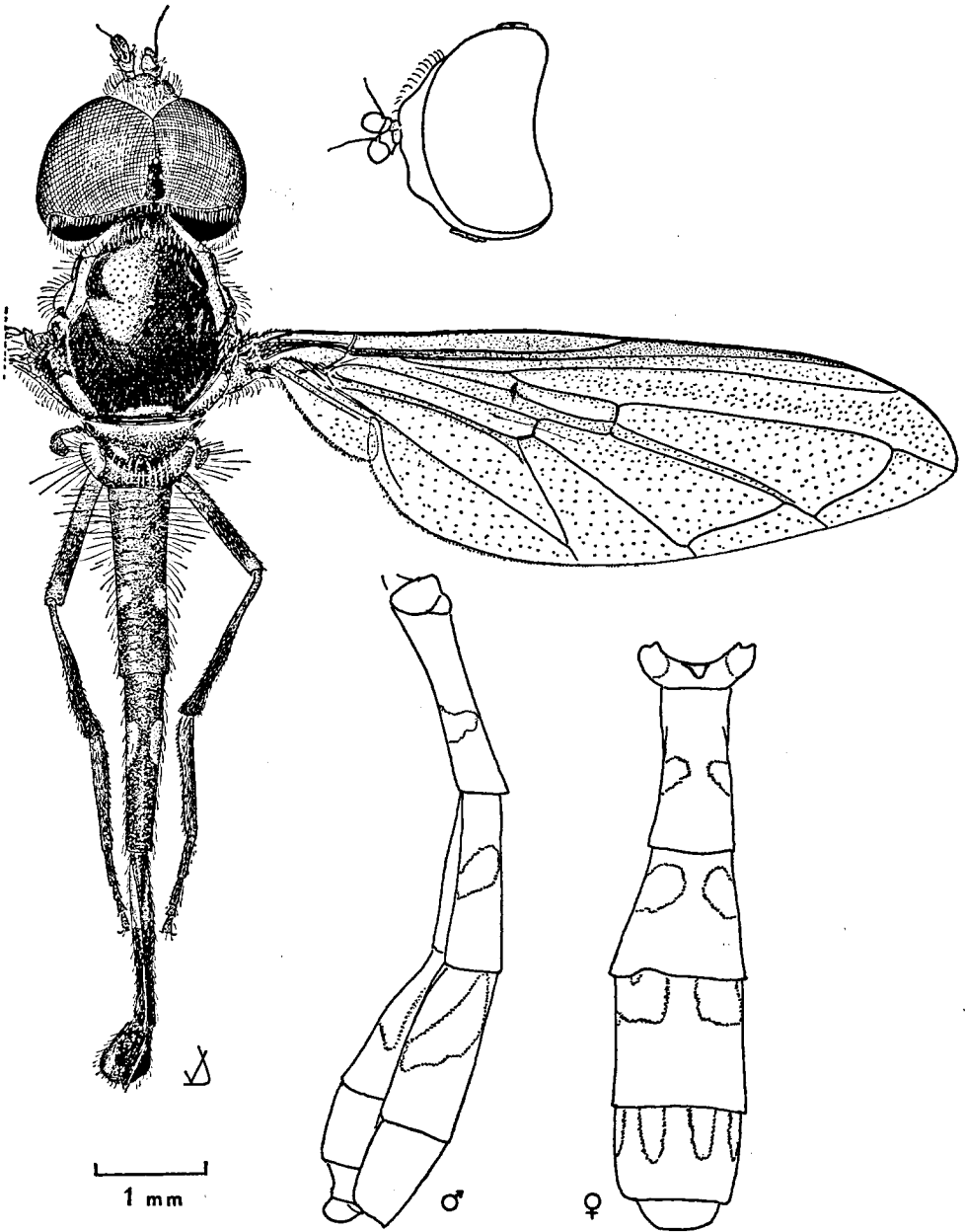


Fig. 59. *Baccha filii* n. sp. from SURINAME, with abdomen of ♂ (left) and ♀ (right).

Baccha filii n. sp.

Fig. 59

A slender, blackish species with white markings on mesonotum and abdomen. Superficially like a small *B. clavata* F. in appearance, but in profile the face retreats below the facial tubercle. Length 8–9mm.

Male – Head. Front and face yellow, the face with dark greenish reflections between tubercle and antennae, and whitish pollinose along the eye-margins; tubercle moderately large and prominent. Upper half of face with rather long, fine hairs, the lower half apparently bare. Front longer than wide with a black dot above the base of antennae, the pile long and black. Vertical triangle narrow, brownish black with short black pile, the slightly raised ocellar triangle isosceles. Eyes dark red but all of the eye-edges steely black, narrowly so along the face, very broadly along the line of contact and along the lower occiput. The upper front facets are scarcely enlarged. Antennae short, orange, third joint a little darker, rounded, not as long as high; arista rather long, black with reddish base.

Mesonotum and pleurae shining greenish black; the humeri, a broad stripe between humeri and suture and a spot on the posterior calli, dirty white. Mesonotal pile moderately short, white and scanty, with the exception of a well-developed white “collar”. Mesopleurae posteriorly with a vertical, whitish yellow band which is produced upon the sternopleurae. Scutellum shining greenish, the disc brownish pollinose altering into white pollen along the base. Scutellar pile and fringe rather long, white. Metascutum shining black.

Abdomen very slender, about as long as the wings, black with dirty white markings. First segment short, the sides broadly rounded, whitish, with long stiff white hairs. Second segment three and a half times as long as broad basally, slightly narrowing towards the apex, beyond the middle with two white, transverse spots laterally, each occupying about one third of the width of the segment. Third segment as long as the second, the side spots lying in the middle of the segment-length, they are broad, oblique, their inner ends not widely separated. Fourth segment shorter than the third, the side spots still larger, oblique, very narrowly separated medianly and nearly reaching the anterior margin of the segment with their tip. Fifth segment short without markings. Hypopygium

small, globular, black. Abdominal pile scattered, short and mostly black, but long and pale on the sides of the first segment and the base of the second segment.

Front and middle *legs*, and their coxae, pale yellow with yellow pile, the front metatarsi brownish above. Hind coxae and femora yellow, the latter with a broad, blackish, sub-apical band; hind tibiae and tarsi dark brown, the basal third of the tibiae yellow. Pile of the hind legs black but golden yellow on the under surface of the tarsi.

Wings hyaline, iridescent, the whole stigmal cell light brown. Alulae normal. Halteres white with dark orange knob. Squamae wholly white, the fringe long.

Female – Front and vertex very narrow, scarcely widening to level of antennae, the face strongly narrowing to the oral margin. Front shining greenish black, the sides broadly yellow along the eye-margins beginning somewhat below level of anterior ocellus, and downwards connected with the yellow of the face. Above the base of antennae the front is wholly orange. The black dot is present.

The remainder of the head, thorax, legs, squamae and halteres is similar to the male. The white base of the scutellum is still more pronounced. Abdomen somewhat clavate, narrowest in the middle of the second segment. The white markings of the first, second and third segments nearly similar to those of the male. Fourth segment with a broad, basal fascia, broadly interrupted medially. Fifth segment with four basal vittae reaching the middle of the segment. Sixth segment black.

Holotype ♂, Mariënborg, Paramaribo, SURINAME, 7.5.1959; allotype ♀, Paramaribo, 11.1.1958; paratype ♀, Paramaribo, 6.2.1960 (P. H. van Doesburg jr.).

The writer has the great pleasure to dedicate this interesting species to his son in recognition of his hearty and very important coöperation.

Baccha flavipennis (Wiedemann) — PL : 9

WIEDEMANN 1830, Auss. Zweif. Ins. 2: 123 (*Syrphus*).

Baccha funebris (Macquart)

MACQUART 1834, Hist. Nat. Dipt. 1: 554 (*Ocyptamus*).

SURINAME! 1 ♂, Emma Mts, Hendriktop, 1000 m, 2.7.1959 (A. van Aerde)

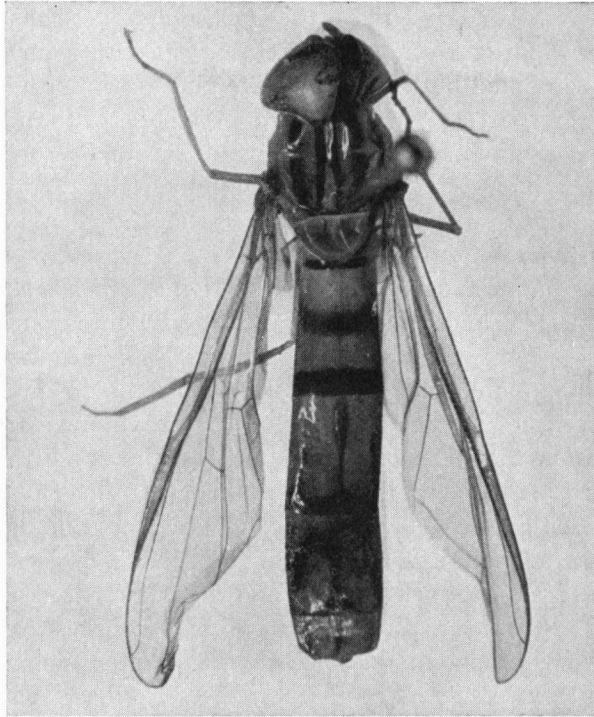


Fig. 60. *Baccha geijskesi* n. sp. from SURINAME, holotype, ♂.

Baccha gastrostacta (Wiedemann) — PL : 10

WIEDEMANN 1830, Auss. Zweif. Ins. 2: 123 (*Syrphus*).

***Baccha geijskesi* n. sp.**

Fig. 60

A large, yellow and brown species with long, parallel-sided abdomen; belonging to the *Cultrata*-group (AUSTEN's Group III).

Male — Length 16 mm. *Head* yellow, frontal triangle with a small, black dot above the base of antennae. Vertical triangle long, narrow, brown. Facial tubercle large and prominent, somewhat bulbous. Eyes large with practically uniform facets, their line of contact long, the scanty pile short. Antennae very short, third segment as long as high, roundish. Occiput heavily grey pollinose. above with a row of long, well-isolated, white hairs.

Thorax yellow, the pleurae with opalescent reflections. Mesonotum with four dark brown vittae; the median pair complete, narrowly separated but somewhat diverging towards the posterior margin; the lateral stripes running from the anterior to the posterior margin, interrupted by yellow along the suture. Mesonotum and scutellum with extremely short, yellow pubescence. Scutellum and metascutum yellow; scutellar fringe reduced to a few, very short, black bristly hairs.

Abdomen flat with parallel sides, about five times as long as the basal width, its colour is yellow basally, altering into orange beyond the second segment. First segment short, its posterior margin bordered by an undulating brown fascia. Second segment about one and a half times as long as broad, with two brown fasciae: one lying in the middle of the segment, the other one is a little broader, and darker brown, and lying upon the posterior margin. Third segment a little shorter than the second, orange with a dark brown fascia along the posterior margin. From this band three very narrow, broadly separated, brown lines are running forwardly; the median one splits up half way its length, the two branches are parallel, narrowly separated and don't reach the anterior margin of the segment. The two sublateral vittae are a trifle thicker and slightly directed inwardly, they end halfway the distance to the anterior margin of the segment. Fourth segment one and a fourth times as long as broad, orange, the posterior fascia much narrower, the vittae similar to those of the third segment but much thicker, the median one not furcated and the lateral ones a little longer but by far not reaching the anterior margin of segment. Fifth segment half as long as broad, orange with a black, complete middle line and on either side a short, oblique, isolated, brown stripe. Hypopygium normal, mostly yellow. Venter wholly yellowish orange. Abdominal pile scattered, short and black dorsally, longer and white ventrally, longest and yellow at the sides of the first segment. There is also longer black pile along the lateral margins of the abdomen and on the posterior half of the fifth abdominal segment.

Legs wholly yellow, only the tips of the claws black. Hind femora without dark band. Hind metatarsus as long as the remainder joints together. Pile of the legs extremely short, yellow.

Wings broad, longer than the abdomen, hyaline with brown costa and orange veins; the subapical cross-vein bisinuous. Stigmal cell pale yellow. Alulae fully developed. Squamae orange with long, dense, whitish fringe. Halteres orange.

Holotype ♂, Botanical Garden (Cultuurtuin), Paramaribo, SURINAME, 9.6.1950 (D. C. Geijskes).

Baccha geijskesi is related to *B. fervida* Austen by the fully developed alulae and the bisinuous subapical cross-vein but differs from this species by its large size, large facial tubercle, parallel-sided abdomen and colourless wings (not "suffused with brown").

It gives the writer great pleasure to name this beautiful *Baccha* in honor of its collector.

***Baccha johnsoni* Curran — PL : 10**

CURRAN 1934, Bull. Amer. Mus. Nat. Hist. 66: 392.

***Baccha lineata* Macquart**

MACQUART 1946, Dipt. Exot. Suppl. 1: 139, pl. 20 fig. 5.

SURINAME! 3 ♂, Albina, 26.6.1963.

Described from Texas and Yucatán.

***Baccha norina* Curran — PL : 10**

CURRAN 1941, Bull. Am. Mus. Nat. Hist. 78: 267.

***Baccha ochreolinea* Hull**

HULL, 1944, Psyche 51: 31.

SURINAME! 1 ♀, Gansee, 20.10.1959; 1 ♀ Republiek, 26.12.1962.

Described from Barro Colorado Isl., Canal Zone.

***Baccha ovipositoria* Hull**

HULL 1943, Ent. Amer. 23: 76.

SURINAME! 1 ♀, Auca on Suriname River, 27.5.1963.

This specimen answers well to the description except that its length is merely 8.5 mm. HULL's specimen, also a female, came from Colombia, its length was 12 mm.

***Baccha pictula* Hull — PL : 10**

HULL 1949, Ann. Mag. Nat. Hist. (12) 2: 737 (♂).

To the writer's opinion *B. pictula* is the same as *B. cultrata* Austen. Cf. the remarks under this species.

***Baccha princeps* Hull**

HULL 1944, Bull. Brookl. Ent. Soc. 39: 56.

SURINAME! 1 ♂, Emma Mts., Hendriktop, 1000 m, 2.7.1959 (A. van Aerde).

This male agrees very well with HULL's description of the male in FLUXUS's collection. This holotype was from Puyi, Oriente, Ecuador (and also from 1000 m above sea-level). The allotype came from Perú and is in the Cornell University Collection. In the writer's collection also two females from Perú.

Baccha prudens Curran

CURRAN 1934, Bull. Amer. Mus. Nat. Hist. 66: 394.

SURINAME! 1 ♂ Sipaliwini, 8.6.1963.

CURRAN described the species after one, damaged female from Kartabo, the lunular area and upper part of the face were missing. HULL (1949b) is giving a figure of the male abdomen (p. 237, fig. 210) and wing (p. 281, fig. 377); this male has been designated as "allotype" on p. 280, but no description of the male is known to me except what has been recorded by HULL in his Key. Our male agrees well with the key and the figures.

Baccha pumilla Austen — PL : 11

AUSTEN 1893, Proc. Zool. Soc. London 1: 48, fig.

SURINAME. To the single female recorded may be added: 1 ♀, Sipaliwini, 7.6.1963, and 1 ♂, Voltz Mountain, Coppename river, 13/15.7.1963. Moreover 1 ♂, Republiek, 26.10.1963 (Geijskes).

The males are more slender and less clavate as are the females; their hypopygium is greatly enlarged.

SACK (1941, Beitr. Fauna Perus: 102) records the species from Perú.

Baccha shropshirei Curran

CURRAN 1930, Amer. Mus. Novit. 403: 7.

SURINAME! 2 ♀, Sipaliwini, 13.6.1963.

CURRAN described the female from Corozal, Canal Zone.

Baccha wilhelmina Doesburg — PL : 11

DOESBURG 1962, Stud. Fauna Suriname 5: 27, fig. 5.

Baccha zeteki Curran — PL : 11

CURRAN 1930, Amer. Mus. Novit. 403: 9.

SURINAME. 9 ♂ 19 ♀ from Mariënborg, Charlesburg, Geyersvlijt, Ma Retraite. Rather frequent in the environment of Paramaribo. The species has also been found in Vilcanota, Perú.

Genus **Calostigma** Shannon

Calostigma hyalipennis (Curran)

CURRAN 1930, Amer. Mus. Novit. 415: 15 (*Callostigma*).

SURINAME! 1 ♀, Mapane area, Camp 8, 28.5.1963. Recorded from Honduras and Argentina.

Calostigma obliqua (Curran)

CURRAN 1941, Bull. Amer. Mus. Nat. Hist. 78: 258 (*Callostigma*).

SURINAME! 1 ♀, Mapane area, Camp 8, 28.5.1963; ?1 ♂, Blauwgrond, 28.4.1963.

The female agrees perfectly with CURRAN's description of the female and with HULL's figure of the female holotype but I am not quite sure whether the identification of the male from Blauwgrond is correct. It differs from the female by the abdominal markings which are less oblique, cut off posteriorly and thus changed into six oblong rectangles terminating far from the posterior margins of the segments. The small hypopygium is black. In all other respects this male is quite similar to the female. CURRAN described one female only, from Panamá, Canal Zone.

Genus *Salpingogaster* Schiner

Salpingogaster nigra Schiner — PL : 11

SCHINER 1868, Reise Novara Dipt.: 344.

Genus *Xanthandrus* Verral

Xanthandrus mexicanus Curran — PL : 12

CURRAN 1930, Amer. Mus. Novit. 416: 9.

Subfamily MICRODONTINAE

Genus *Microdon* Meigen

Microdon angustiventris (Macquart) — PL : 12

MACQUART 1855, Dipt. Exot. Suppl. 5: 85 (*Aphritis*).

Microdon angustus (Macquart) — PL : 12

MACQUART 1846, Dipt. Exot. Suppl. 1: 122 (*Aphritis*).

SURINAME: 1 ♀, Zanderij, 11.5.1963; 1 ♂, Republiek, 30.5.1963

Microdon bidens (Fabricius) — PL : 12

FABRICIUS 1805, Syst. Antl.: 185 (*Mulio*).

Microdon brutus Hull

HULL 1944, Rev. de Ent. 15: 37.

SURINAME! 1 ♀, Paramaribo, 9.1.1958.

This female answers to HULL's description in most respects, but it is not quite clear whether HULL is describing a female or a male. On p. 37 he writes: "Female, length 7.5 mm", but on p. 38 the description ends: "Holotype, male". Moreover, in the preamble to the description we find: "antennae uniformly brown" but in the description itself, a few lines below, we read: "antennae missing".

The female recorded above fits HULL's description as regards the brown antennae, the emerald-green colour of the head, the mesonotum and the first two abdominal segments, the colour and broadly trapezoidal form of the scutellum, the colour of legs and wings and the white pile on face, mesonotum, first two abdominal segments, posterior borders of third and fourth segments and on nearly the whole fifth

segment. The length of our specimen, however, is 9 mm and the hind metatarsus is darkened above.

HULL's specimen came from Bahia, Brasil; the type will be found in the Cornell University collections.

***Microdon flavofascium* Curran**

CURRAN 1925, Ann. Mag. Nat. Hist. (9) 16: 346.

SURINAME! 1 ♂, Raleigh Falls, Coppename River, 16.7.1963.
Described from Brasil: Minas Gerais.

***Microdon fulgens* Wiedemann — PL : 12**

WIEDEMANN 1830, Auss. Zweifl. Ins. 2: 82.

MACQUART (Dipt. Exot. Suppl. 1: 122) records a specimen from Cayenne.

***Microdon geijskesi* n. sp.**

Head, thorax, scutellum and the first two abdominal segments, shining metallic green; remainder of abdominal segments dark brown (♂) or more reddish brown (♀), but always with strong greenish shine.

Male — Length 7.5–8 mm. Frontal depression about one fifth of the breadth of *head*; the front moderately widening above and below the depression. There is a longitudinally striate area just above the depression. Frontal pile blackish above the depression, mostly white below it. Vertex broad, shining; occiput with rather long, white pile. There is a small, shining black area just above the insertion of the antennae. Antennae black, scarcely longer than the face, the third joint about as long as the first, the second joint very short. Third joint lanceolate, the upper margin nearly straight, the apical half of the lower margin ascending to meet the upper margin in a blunt tip. Arista short. Face gently convex, finely and closely punctate, narrowly grey pollinose along the orbits; facial pile long and white, rather scarce upon the middle of the face, abundant upon the sides and above the epistoma. There is an area with black pile around the insertion of the antennae. Eyes with very short, white, scattered hairs.

Thorax and scutellum with rather long, erect, whitish yellow pile; mesonotum with fine, scattered punctures, its disc finely striate, mostly so upon the anterior half, bluish green coloured, in front of the scutellum in places bluish violet or even red brassy. Scutellum

more bluish, triangularly rounded, sometimes with an indication of a median, longitudinal impression, the spines approximate, concolorous with the scutellum or somewhat lighter.

Abdomen. The punctation is close and moderately coarse, especially on the second tergite, less so on the following ones; the pile is long, white, erect on the lateral margins, on the first two segments and on the apical half of the fourth segment; third segment with depressed, short black pile, except for a broad posterior band of white pile and for a triangle of white hair in the anterior corners connected with the lateral pile. Anterior half of fourth segment with depressed black pile, the white pile in the anterior corners similar to the third segment or sometimes restricted to an oblique line running from anterior to lateral margin. Hypopygium black with short, dark brown, bristly pile. Venter metallic green, transversely striate. Visible part of genitalia reddish.

Legs. Femora metallic green with yellow apex; tibiae yellow with a small black dot in the middle; tarsi dark brown to blackish, the base of the metatarsi somewhat lighter. Apical two-thirds of hind femora with a longitudinal depression anteriorly. Legs mostly white pilose, upon the tarsi intermingled with short black bristles.

Wings greyish villous, slightly smoky along the cross-veins. Discal and subapical cells with rounded or angular corners, the apical cross-veins straight, the upper one slightly recurrent, their appendages may be present, rudimentary or absent in either one or in both wings! Squamae white with yellow border and fringe. Halteres white or yellowish white.

Female – Length 8–9 mm. The colour is similar to that of the male except for the third and following segments of abdomen of which the ground-colour is a little more reddish brown, slightly cupreous, the greenish shine less pronounced. Front and face not fully one third of the breadth of head, the sides almost parallel; front without transverse depression and without striae. Tarsi more yellow, especially the hind tarsi. Wings a little darker by the villi, a little more smoky along the veins; the apical cross-veins and their appendages just as variable as in the male.

Holotype ♂, and Allotype ♀, Kwatta, parwa-wood, near Paramaribo, SURINAME, 1.2.1964 (in trap; D. C. Geijskes). Paratypes: 2 ♂, Paramaribo,

Sep. 1957 and 4.7.1962; 1 ♀, Paramaribo, 2.6.1957 (P. H. van Doesburg jr.); 1 ♂ 1 ♀, same data as types; 1 ♀, Domburg, 13.12.1963 (Geijskes).

The two males and the female from Paramaribo were already in the collection for some time. However, on account of the mutual differences between the males as well as between the males and the female the writer was puzzled about these specimens until Dr. GEIJSKES sent us the two males and three females recorded above. Especially the male and the female with the same data (Kwatta, etc.) cleared up the question.

That's why the writer has the great pleasure to dedicate this species to Dr. D. C. GEIJSKES.

***Microdon granulatus* Curran**

CURRAN 1940, Amer. Mus. Novit. 1086: 9.

SURINAME! 1 ♂ 1 ♀, Republiek, 17.8.1963.

CURRAN described the female only, from British Guiana: Mazaruni (2 ♀), and Amatuk (1 ♀); the holotype being in the British Museum of Natural History.

The front of the male is very narrow between the interior angles of the eyes, about one tenth of the breadth of the head; from there upwards the front is moderately widening to the very large and wide vertex. Upper occiput also very broad, but downward rapidly narrowing. Frontal triangle large, equilateral. Face with parallel sides. Eyes shortly but densely pilose. Hypopygium blue, the external genitalia dark reddish. For the rest the male is quite similar to the female.

By their brilliant metallic green colour and the large, coarse, deep punctures on thorax and abdomen these flies are a perfect imitation of Chrysid wasps; even the venter seems to be concave caused by the lateral margins of the abdomen which are strongly bent downward. The species belongs to the subgenus *Chrysidimyia* HULL (1937b).

***Microdon lanei* Curran**

CURRAN 1936, Amer. Mus. Novit. 882: 5.

SURINAME! 1 ♀, Kwatta, parwa-forest, 8.2.1964 (Geijskes).

Described by CURRAN after one female from Jaquia, São Paulo, Brasil.

The third abdominal segment is strongly constricted and somewhat laterally compressed with parallel sides; consequently this segment has the shape of a sewing-thread pool. Our specimen answers fairly well to the description.

The two males recorded in the "Preliminary List" with some doubt under *M. guianicus* belong possibly to *lanei* Curran. The third segment of their abdomen is also constricted though less strongly than in the female recorded above. Their length and coloration agree perfectly with those of the female. Their antennae, however, are a little shorter and their hind tibiae are black pilose. This may be sexual differences but the number of specimens is too scanty to make a justified conclusion.

***Microdon mixtus* Curran — PL : 13**

CURRAN 1940, Amer. Mus. Novit. 1086: 6. — Cf. *Ubristes simillima*, p. 87.

***Microdon nigrispinosus* Shannon**

SHANNON 1927, Proc. U.S.A. Nat. Mus. 70: 21.

SURINAME! 1 ♂, Republiek, 18.4.1960.

Described by SHANNON after three males from Ega and Trabajos, Brasil. The type-specimen is in the British Museum.

Microdon biluminifera HULL (1944, J. Wash. Acad. Sci. 34: 399) from Espirito Santo, Brasil, seems to be very nearly related according to the description.

Microdon normalis Curran — PL : 13

CURRAN 1925, Ann. Mag. Nat. Hist. (9) 16: 343.

Microdon panamensis Curran

CURRAN 1930, Amer. Mus. Novit. 416: 6.

SURINAME! 1 ♀ Zanderij, Creek-forest (in trap), 18/21.7.1964 (Geijskes).

CURRAN described one male and one female, taken *in coitu* at France Field, Panamá. Our female agrees fairly well with CURRAN's description but with one restriction. The male abdomen was said to be brownish black with yellow markings, that of the female as being orange with brownish lateral margins. The abdomen of our female agrees very well with that of CURRAN's *male*! In all probability CURRAN's female had just emerged and was still immature what in the world of insects is not an impediment for a copulation.

Microdon trivittatum Curran

CURRAN 1925, Ann. Mag. Nat. Hist. (9) 16: 344.

SURINAME! 1 ♂, Carolinakreek, Zanderij, 30.4.1962.

Described from Kartabo, British Guiana, after a single male in the British Museum collection; no further records are known.

Genus **Ubristes** Walker

SHANNON (1927) and HULL (1949c) considered *Ubristes* to be a sub-genus of *Microdon*. FLUKE (1957) records it as a separate genus.

The *Ubristes* species are rather small, black, brown or yellow flies; their abdomen is either sub-oval or more or less tapering beyond the second segment; their hind tibiae are more or less enlarged and thickly clothed with long hairs dorsally, often continued upon the broadened hind tarsi. By these characters the flies are distinctly mimicking the stingless honey bees of the genus *Trigona* (SHANNON, HULL, GEIJSKES *in litt.*) This has undoubtedly biological significance. On account of these facts it seems to be justified to give *Ubristes* genus-rank.

The third longitudinal vein is provided with a downward spur in the most part of the species; in a few species this stump is absent. In our collection, however, are two males of *Ubristes goettei* Shannon: in one of them the stump is present, in the other male and in seven females, the stump is absent!

Among our Suriname specimens we recognized five species which we tabulated within the following

Key (free after SHANNON 1927)

1. Thorax entirely black 2
- More or less yellow present 5
2. Abdomen spindle-shaped, very slightly narrowed beyond the middle (see HULL 1949c, p. 313, fig. H), 10 mm
- *flavitibia* Walker
- Abdomen strongly tapering towards the apex 3
3. Three (♂) or four (♀) abdominal segments visible, wings with preapical white stripe *lacteipennis* Shannon
- Four (♂) or five (♀) segments visible 4
4. Wings without white preapical stripe, 7.5 mm
- *trigoniformis* Shannon
- Wings with white preapical stripe, 5 mm . . . *puerilis* n. sp.
5. Abdomen ovate, scutellum triangularly produced into a point *scutellaris* Shannon
- Abdomen tapering beyond 2nd. segment, scutellum rounded 6
6. Basal half of wings decidedly yellowish tinged 7
- Wings greyish, with or without a white preapical crossband 8
7. First antennal joint as long as second and third together *wheeleri* Mann
- First joint half as long as second and third together
- *mackiei* Curran
8. Third vein normally without appendix, wings with preapical whitish crossband. *goettei* Shannon
- Third vein always with an appendix 9
9. Hind femora yellow, wings without crossband; small species *fraudator* Shannon
- Hind femora dark brown, wings with a small yellow crossband which does not reach the fourth vein, larger species
- *simillima* Hull

Ubristes fraudator Shannon

SHANNON 1927, Proc. U.S. Nat. Mus. 70: 20.

SURINAME! 2 ♂, Ma Retraite, 14.1 & 9.2.1964; 1 ♂, Charlesburg, 21.1.1964; 1 ♀, Kwatta, 1.2.1964 (all by Geijskes).

The three males agree with SHANNON's description of the species. The female, not described by him, is quite similar in coloration to the male. SHANNON described the species after one male from the Amazons.

Ubristes goettei Shannon

SHANNON 1927, Proc. U.S. Nat. Mus. 70: 19.

SURINAME! 1 ♂, 1 ♀ (in copula), Paramaribo, Cultuurtuin, 9.3.1961; 1 ♂, 23.4.1963. The latter male has a very short vein-stump on the third vein but apart from that it is quite similar to the other male. From Dr. Geijskes we received: 2 ♀, Republiek, 19.10 and 5.11.1963; 3 ♀, Lelydorp (trap), 5.8.1963, 31.1 and 29.5.1964; 2 ♀, Paramaribo, Ma Retraite, 23/24.8.1963 and 28.2.1964.

SHANNON records five females. Type locality Amazon, but also from Ega, and Pará, Brasil. "This species closely resembles *Trigona goettei* Friese" (SHANNON).

Ubristes lacteipennis Shannon — PL : 14

SHANNON 1927, Proc. U.S. Nat. Mus. 70: 18.

SURINAME. Further records: 2 ♂, 5 & 9.11.1963; 2 ♀, 8.10 and 5.11.1963, all Republiek (Geijskes); 1 ♂, Blakawatra, 13.6.1963 (Mrs. E. van der Vecht).

In both sexes the apical margin of the second abdominal segment is broadly excised leaving a reddish, crescentic membrane between the second and third segments. This membraneous area is also present in *goettei* but absent in *fraudator*.

Ubristes mackiei (Curran)

CURRAN 1940, Amer. Mus. Novit. 1086: 5 (*Microdon*).

SURINAME! 1 ♀, Paramaribo, Apr. 1950. Moreover: 1 ♂, Charlesburg, Paramaribo, 21.1.1963; 1 ♀, Coppename river, Raleigh Falls, 12.7.1963 (Geijskes); 1 ♀, Blakawatra, 11.6.1963 (Mrs. E. van der Vecht).

Undoubtedly *Microdon mackiei* belongs to *Ubristes* by the long, erect hair upon the strongly enlarged posterior tibiae and by the strongly constricted abdomen. The species seems closely related to *Ubristes wheeleri* (Mann) by the form of the scutellum which is transverse, very short and very broad, the side-margins are roundly excised, consequently there are two spines on either side, a basal spine and an apical one. The first antennal joint, however, is said to be nearly half as long as the second and third joints together.

SHANNON (1927) already stated that *Microdon wheeleri* Mann and *Micr. micromidas* Shannon belong to *Ubristes*. The species was described after a single male from Rockstone, British Guiana; no further records are known.

Ubristes puerilis n. sp.

Similar to *lacteipennis* Shannon, but first antennal joint more slender, about four times as long as broad, the third joint barely longer than the first.

Female – Length 5.5 mm. Vertex, front and face one third of the width of head. *Head* in front view as broad as high, black, the face narrowly reddish and grey-dusted along the eye borders, a very broad median vitta shining black. Ocellar triangle protuberant. Vertex and front densely and obviously punctate. Between vertex and front a transverse depression. Occiput with coarse, stiff, black pile; vertex and front with short, white pile, on the vertex directed forward, on the front directed backward. Face with white pile, the broad median vitta nearly bare, the sides with moderately long pile, increasing in length towards the oral margin where it is very long. Antennal callus shining black. Eyes bare, dark reddish with irregular yellow spots. Antennae dark reddish, second joint black, third joint covered with grey dust, its upper and lower margins straight, parallel, its tip rather pointed. Arista short, placed upon the outer side of the joint not far from its base.

Thorax black, only the postalar calli, and a narrow line on the mesopleura from below the wing base to the anterior coxae, indistinctly dark reddish. Pleurae practically bare. Mesonotum with very short, erect, mostly whitish pile. Scutellum short and broad, shining, with a longitudinal median groove, its rounded apical margin with rather coarse, erect, black, stiff hairs. Metascutum very large, shining black, impunctate.

Abdomen black, the first three segments with irregular, dark winy discolourations. First tergite about as wide as thorax, its apical margin nearly a perfect half circle. Second tergite much broader, about twice as wide as long medially, broadly surrounding the first segment and then slightly tapering to the apex, its disc somewhat depressed leaving the lateral margins broadly vaulted, its apex narrowly and irregularly marginated, straight, no membraneous area visible. Third segment seen from above is sub-triangular, widest at the base, strongly tapering to the apex because its side-ports are bent downward just as are those of the fourth and fifth segments. Fourth segment somewhat longer than the third, its base

and apex of the same width, its sides very slightly rounded. Fifth segment short, triangular. Venter mostly reddish, the last sternite black. Abdomen with very weak, scattered puncturation, the pile mostly white, erect, very short, but longer along the anterior margin of the second tergite, along the sides of the abdomen and on the whole fifth segment.

Legs. All coxae, femora, tibiae, anterior four meta-tarsi and the basal two segments of the hind tarsi, brownish black; the remainder of the tarsal joints dirty yellow. Middle and hind femora moderately incrassated, the latter with a linear, shallow indentation not far from its base. Hind tibiae broadened ventro-dorsally, the long dorsal brush of pile black, but white for a short basal part. There is a strong incision beyond the middle of the hind tibiae. Hind tarsi broadened, most of all the meta-tarsus. Pile of legs mostly black.

Wings hyaline, greyish with a distinct, complete, whitish cross-band just beyond the middle; all the dark longitudinal veins are yellow when they pass the crossband. The marginal cross-vein is perpendicular, the sub-marginal cross-vein somewhat directed outwards; both cross-veins with an appendix at their origin. Squamae small, grey with black border and fringe; halteres yellowish, the upper surface of the knob with a black, shining stain.

Holotype ♀, Zanderij, SURINAME, 23.9.1960 (P. H. van Doesburg jr.).

Ubristes simillima (Hull)

HULL 1950, Ann. Mag. Nat. Hist. (12) 3: 611 (*Microdon*).

SURINAME. 1 ♀, Paramaribo, 14.12.1957.

This is the same specimen recorded as *Microdon mixtus* Curran in our "Preliminary List" (p. 13). CURRAN described the female of *M. mixtus*; HULL's description of *M. simillima* was after three males. Both descriptions are rather brief. Our single female agrees with these both descriptions, but before we have seen a matching male we don't dare make a conclusion. According to HULL *simillima* should also be closely related to *inarmatus* Curran.

Genus **Pseudomicrodon** Hull

Pseudomicrodon beebei (Curran)

Fig. 61

CURRAN 1936, Amer. Mus. Novit. 88a: 4 (*Microdon*).

SURINAME! 1 ♀, Republiek, forest, 30.10.1963 (Geijskes); 1 ♀, 1 ♂, Phedra, forest, 26.10 and 14.12.1964 (Geijskes).

Described by CURRAN after a single female from Kartabo, British Guiana. The head of that specimen was "rather badly damaged". We may add to the description that

the vertex including the ocellar triangle is rather strongly developed, still more so in the male. Second antennal segment short, together with the third joint about as long as the first segment, black. Arista shorter than the third segment, brown. Hind femora with a variable, bluish metallic strip dorsally. Hind tarsi a little darker reddish.

The male is similar to the female, the black spines on the apical half of the posterior femora a trifle stronger. Hypopygium rather large, globular, dark yellow with very short, fine, yellow pile. The brownish borders along the longitudinal wing-veins of the female, are almost absent in the wings of the male.

Genus *Rhopalosyrphus* Giglio-Tos

***Rhopalosyrphus g ntheri* (Arrib lzaga)**

Fig. 62

ARRIB LZAGA 1891, An. Soc. Cient. Argentina 32: 197 (*Holmbergia*).

SURINAME! 1  , Paramaribo, 2.5.1962.

Described from Argentina; also recorded from M xico and Texas. The above specimen seems to be the first one taken in the equatorial zone.

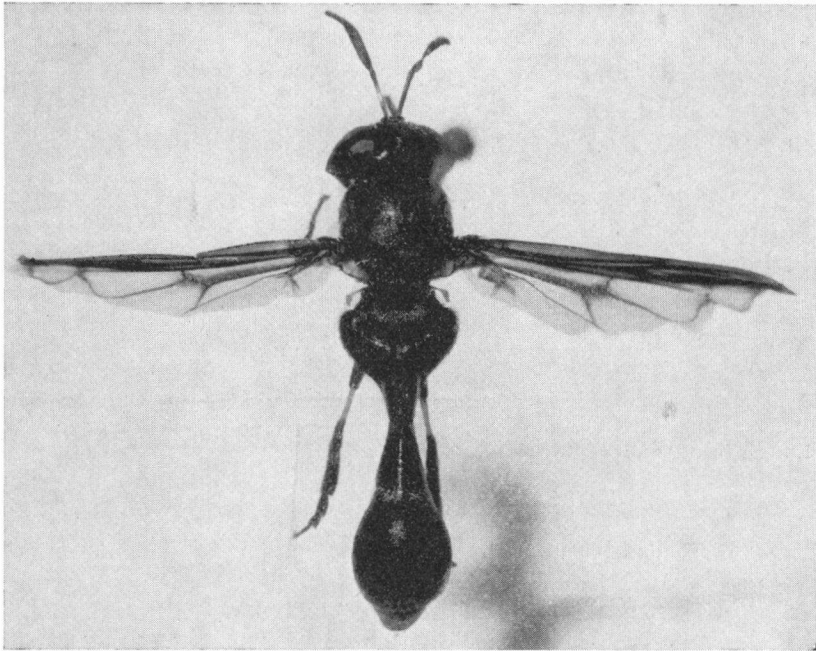


Fig. 61. *Pseudomicrodon beebei* (Curran) from SURINAME,  .

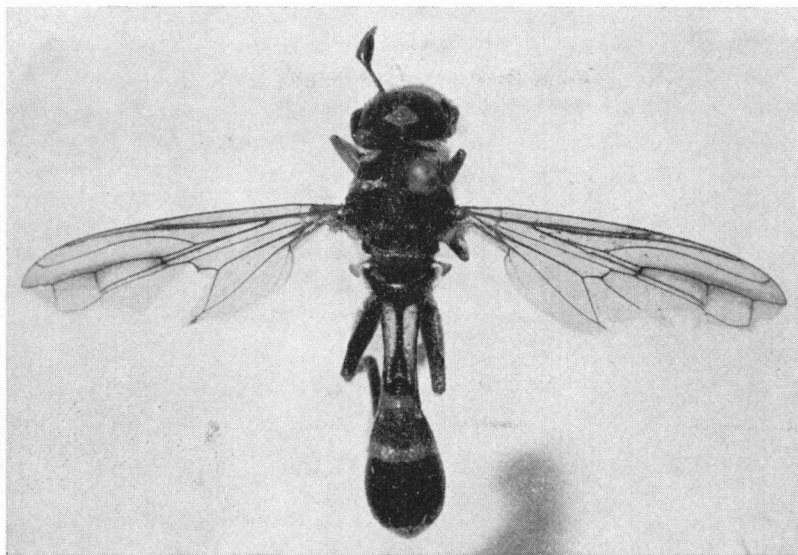


Fig. 62. *Rhopalosyrphus güntneri* (Arribálzaga) from SURINAME, ♀.

Genus **Ceratophya** Wiedemann

Ceratophya minutula n. sp.

Fig. 63-64

Head, thorax, abdomen and legs very light yellow with dark markings. The yellow and black pattern of the abdomen recalls that of the african *Graptomyza triangulifera* Bigot (Volucellinae). Length 4 mm: the smallest Microdontine ever seen by the writer.

Male - *Head*. Front and face whitish yellow, occupying about one fourth of the width of head, with parallel sides, the face in profile evenly rounded. Front with a broad, shining brownish black stripe between the rear ocelli and the antennal base, and with a shallow, darker impression along each upper eye-corner. Vertex, and upper portion of occiput, broad. Antennae shorter than the face, third joint as long as the first, second joint about one fifth of that length. First and second joints black, third joint yellow with darker tip. Arista short, rather thickened, brown. Ocellar triangle wider than long. Eyes large, their facets nowhere enlarged, their scattered pile white, short. Facial pile very short, yellowish white, the whole occiput, and the cheeks, with longer, white hairs.

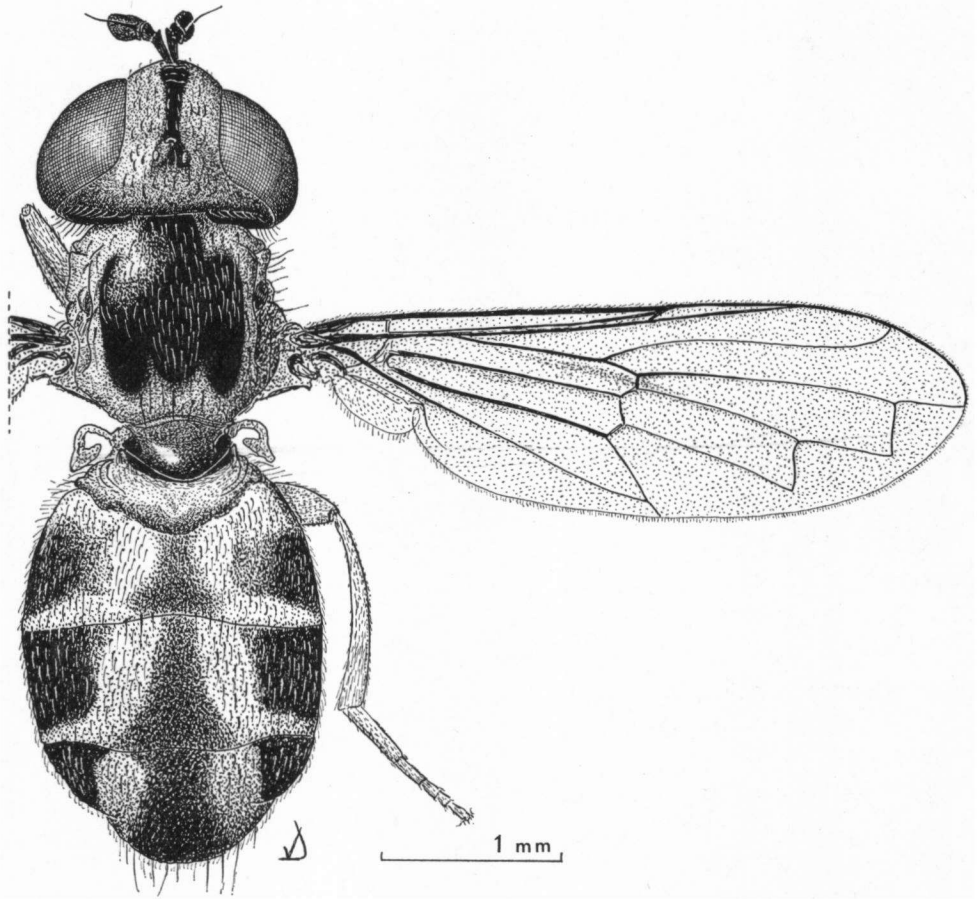


Fig. 63. *Ceratophya minutula* n. sp. from SURINAME, holotype, ♂.

Thorax whitish yellow; disc of mesonotum with a large, black figure composed by three broad, connected vittae, all ending into a blunt point far in front of the scutellum. The middle vitta is the broadest and begins from the anterior margin of the mesonotum, the side vittae begin beyond the humeri. This black figure leaves the margins of the mesonotum broadly yellow except the anterior margin where the yellow is broadly interrupted by black. Pleurae whitish yellow; the sternopleura, and a vertical band on the meso-

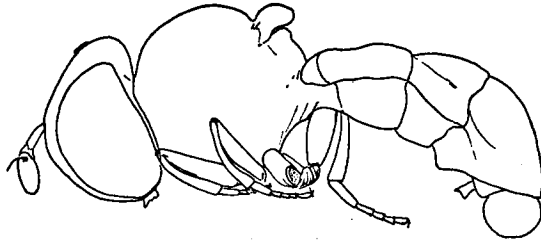


Fig. 64. *Ceratophya minutula* n. sp., holotype, ♂, in side view.

pleura, blackish. Scutellum black, about twice as wide as long, and strongly thickened. Metascutum rectangular, shining black. Mesonotum with rather long, scattered, white hair; tip of scutellum with a few long black hairs.

Abdomen shortly oval, black with yellow markings, the lateral margins narrowly bent down. First abdominal segment yellow basally, broadly bordered with black apically. Second segment yellow; a median, truncate pyramid, not reaching the hind margin of the segment, and on either side a large, broad band reaching the lateral margin, black. Third segment black with two broad, oblique, yellow vittae continued outwards along the apical margin of the segment. The yellow vittae of the fourth segment are broad, nearly parallel and widely separated. Hypopygium rather large, shining black. Dorsum of abdomen with fine, scattered punctures each bearing a hair the colour of which is in consonance with the ground-colour. Venter yellow, with short, shining yellow pile between which several long, black bristles are visible.

Legs, and their pile, mostly whitish yellow, the coxae black, the tarsi more brownish yellow; hind femora somewhat swollen, black, the base and the apex broadly yellow.

Wings hyaline, somewhat darkened by microvilli, the veins black. Vena spuria not perceptible. Stigmal cross-vein present. Lower apical cross-vein recurrent, the upper cross-vein strictly perpendicular between the third and fourth longitudinal veins. Hind margin of wing shortly pilose, longer so on the hind margin of the large alulae. Squamulae white with black margins and without fringe. Halteres white.

Holotype ♂, SURINAME, Zanderij-savannah (trap-capture), 13/16.8.1964 (D. C. Geijskes).

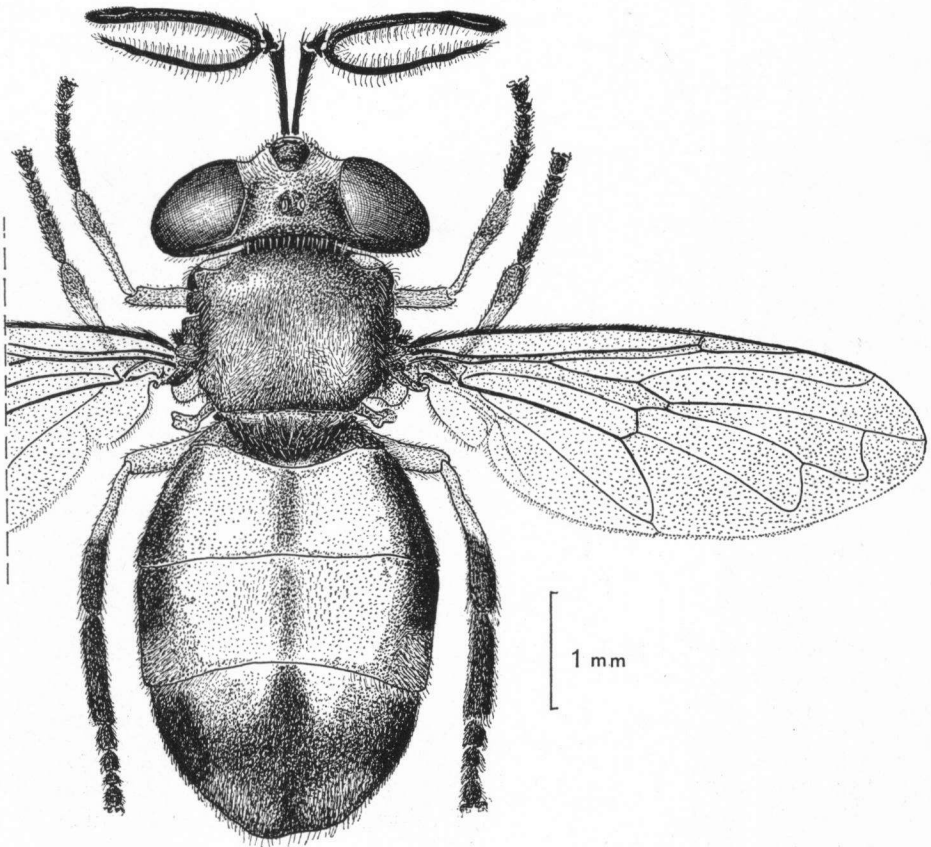


Fig. 65. *Schizoceratomyia barretoei* Carrera, Lopez & Lane from SURINAME. ♂.

Genus *Schizoceratomyia* Carrera, Lopes & Lane

Schizoceratomyia barretoei Carrera, Lopes & Lane

Fig. 65

CARRERA, LOPES & LANE 1947, Brasil Medico 41: 245.

SURINAME! 1 ♂, Zanderij, 8.5.1963 (van Doesburg jr.); 1 ♂, Zanderij (trap), 11.5.1963 (J. v. d. Vecht).

This "fissicorn" species was described after 6 ♂ and 2 ♀ from tropical Brasil: Goráz, São Paulo, Rio de Janeiro and Angra dos Reis. No other localities are known to the writer.

HULL (1949: 316) suggests that *Schizoceratomyia* may be considered as a synonym of *Masarygus* Brèthes (1908); FLUKE (1957) records it as a distinct genus.

In the male of *Masarygus planifrons* (type-species) the third antennal joint is divided into *four* branches, the head is very short and broad, quite flat in front, seen from above transversally rectangular, with very small, fusiform eyes; the abdomen broadening nearly to its apex; in short, its habitus is quite different from that of *Schizoceratomyia barreto*i (type-species). On the ground of the above considerations we are following FLUKE's Catalogue, listing *Schizoceratomyia* as a distinct genus.

The male of *Masarygus megacephalus* (Shannon), as figured by HULL, is still much more aberrant: the head is much broader than the thorax, vertex and front are very high, protuberant, face and epistoma with bristles, third joint of antennae with two enormously developed branches, abdomen elongate, tapering beyond the second segment, hind legs swollen throughout, hind tibiae with long black hairs. For this strange insect we propose the generic name **Carreramyia** n. gen.; type: *Microdon megacephalus* Shannon.

The remainder of the South American, fissicorn Microdontinae (*barreto*i C., L. & L., *flavipes* C., L. & L., and *carrera*i Papavero) may reasonably be listed under *Schizoceratomyia*. That is perhaps also the case with *Johnsonioidon malleri* Curran (1947), the male of which is still unknown. As regards the question of priority, it may be noted here that *Schizoceratomyia* was published on 3rd July 1947 and *Johnsonioidon* 14th July 1947.

Subfamily CHEILOSINAE

Genus *Trichopsomyia* Williston

Trichopsomyia polita Williston

WILLISTON 1888, Trans Amer. Ent. Soc. 15: 260.

SURINAME! 1 ♀, Paramaribo, 3.5.1963.

WILLISTON described one couple from Chapada, Brasil. Our female answers well to the description with exception of its length, 5½ mm. Another female in our collection, from Nova Teutonia, Brasil, agrees perfectly in length with WILLISTON's female (7 mm). The genus is new for the Guianas.

Genus *Lepidostola* Mik

Lepidostola ortalina (v. d. Wulp) — PL : 14

VAN DER WULP 1888, Tijdschr. Entom. 31: 473 (*Lepidomyia*).

Subfamily VOLUCELLINAE

Genus *Volucella* Geoffroy

Volucella alcedoides Curran — PL : 15

CURRAN 1939, Amer. Mus. Novit. 1028: 11.

Volucella brevifacies Curran — PL : 15

CURRAN 1934, Bull. Amer. Mus. Nat. Hist. 66: 386.

SURINAME: 1 ♀, Coppename river, Voltz Mountain, 13/15.7.1963.

Volucella claripennis (Curran) — PL : 15

CURRAN 1925, Ann. Mag. Nat. Hist. (9) 16: 247 (*Phalacromyia*).

Volucella cyanescens Macquart — PL : 15

MACQUART 1842, Dipt. Exot. 2, 2: 24, fig.

Volucella cyanoprocta Curran

CURRAN 1939, Amer. Mus. Novit. 1028: 11.

SURINAME! 1 ♀, Lelydorp (in trap), 5.5.1964 (Geijskes).

CURRAN records a holotype ♂ from Perú, an allotype ♀ from Wismar, British Guiana, and a paratype ♀ from Kamakusa, Br. Guiana.

Volucella emeralda Hull

HULL 1943, Ann. Mag. Nat. Hist. (11) 10: 20.

SURINAME! 1 ♀, Republiek, forest, 19.10.1963 (Geijskes).

Described after a single male from Amazonas, Brasil.

Volucella erythrocephala (de Geer) — PL : 15, 30

DE GEER 1776, Mém. Hist. Ins. VI: 146, fig. (*Musca*).

This species has never been recognised again after DE GEER's description. FABRICIUS 1794, in his work *Entomologia Systematica et aucta* IV: 282, mentioned DE GEER's *Musca erythrocephala* with a query mark as a possible synonym of *Syrphus obesus* Fabricius. FABRICIUS's opinion gains in probability by the fact that *Ornidia obesa* (F.) is a very common species in tropical America having much more change of coming into DE GEER's possession than the enigmatical *erythrocephala*. Therefore we propose to consider *Musca erythrocephala* de Geer (1776) to be a synonym of *Syrphus obesus* Fabricius (1775) till the contrary has been proved.

FABRICIUS's reference to *Musca erythrocephala* de Geer has been omitted by KERTÉSZ in his Catalogue; FLUKE's Catalogue omits the species entirely.

Volucella florella Hull

HULL 1944, Rev. de Ent. 15: 49.

SURINAME! 1 ♂, 1 ♀, Pepee Joe, 20.5.1952, at light (Geijskes).

Type-locality: Tumatumari, British Guiana.

The female agrees very well with HULL's description. The (undescribed) male is similar to the female, but its mesonotum is slightly lighter brown. The yellow hypopygium is moderately large with yellow pile.

Volucella fracta Curran

CURRAN 1926, Ann. Ent. Soc. Amer. 19: 58.

SURINAME! 2 ♀, Mapane area, K. 8, 30.5.1963.

Type locality: Cayenne (♀ only; ♂ unknown).

Volucella fumipennis Sack — PL : 16

SACK 1941, Beitr. Fauna Perus I: 107.

Volucella guianica Hine

HINE 1914, Ohio Nat. 14: 338.

SURINAME! 2 ♀, Zanderij, 30.6.1964 (Geijskes).

These two specimens agree exactly with HINE's description of the female. The length of the smaller one is 7 mm (in compliance with HINE's specimen); the other female is 9 mm long. HINE described a single female from Bartica, British Guiana.

Volucella musicana Curran

CURRAN 1930, Amer. Mus. Novit. 413: 15. (Reference omitted in FLUKE's Catalogue.)

SURINAME! 1 ♂, Wilhelmina Mts., 20.8.1963 (S. Ligorie); 2 ♀, Republiek, forest, 10 and 19.11.1963; 2 ♀, Ma Retraite, 14.1 and 17.2.1964; 1 ♀, Phedra, 26.10.1964 (Geijskes).

The latter female is only as half as long as the others but apart from that quite similar. The marginal cell is closed with a short stalk in the male; in the female this cell is closed just at the costa or shortly open.

Described from Chapada, Brasil. Not yet known from the Guianas.

Volucella nigrifrons (Hine)

HINE 1914, Ohio Nat. 14: 340 (*Phalacromyia*).

SURINAME! 6 ♂, 10 ♀, Paramaribo, practically present during the whole year; 3 ♂, 3 ♀, 14.3.1963, at light.

Described from Bartica, British Guiana.

Volucella obliquicornis Curran

CURRAN 1939, Amer. Mus. Novit. 1028: 12.

SURINAME! 1 ♂, Republiek, 28.8.1959; 1 ♀, Zanderij, 8.5.1963; also 1 ♀, Republiek, forest (in trap), 11/16.11.1963 (Geijskes).

Type-locality: British Guiana, Tumatumari (♂) and Kamakusa (♀).

Volucella pallens Wiedemann — PL : 16

WIEDEMANN 1830, Auss. Zweifl. Ins. 2: 204.

V. pallens var. *quadripunctata* Doesb. — PL : 17 and 30

VAN DOESBURG 1962, Stud. Fauna Sur. 5: 30.

Volucella pallida Macquart — PL : 17

MACQUART 1842, Dipt. Exot. 2, 2: 26 (The very short latin diagnosis is followed by the cross-reference Tab. 3, fig. 4; this figure, however, indicated 3bis is a *Sericomyia*. A figure of *V. pallida* is not existing in the work.)

SURINAME: To the single ♀ recorded we may add 2 ♀ from Sipaliwini, 7 and 13.6.1963.

Volucella picta Wiedemann — PL : 17

WIEDEMANN 1830, Auss. Zweifl. Ins. 2: 201.

Fig. 66

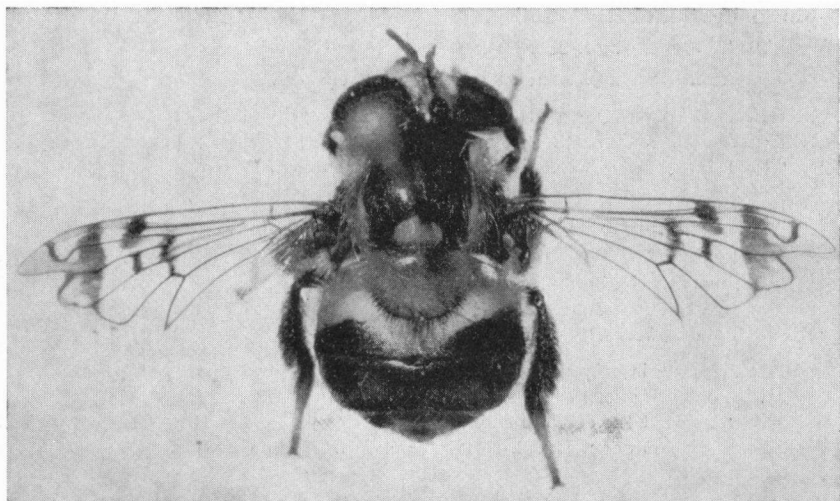


Fig. 66. *Volucella picta* Wiedemann, from SURINAME, ♀.

***Volucella pusilla* Macquart**

MACQUART 1842, Dipt. Exot. 2, 2: 21, pl. 5 fig. 1.

SURINAME! 2 ♀, Mapane area, K. 8, 28.5.1963.

Type-locality Cuba. Also recorded from Puerto Rico by WOLCOTT.

***Volucella tympanitis* Fabricius — PL : 17**

FABRICIUS 1805, Syst. Antl.: 226.

***Volucella vaga* Wiedemann**

WIEDEMANN 1830, Auss. Zweifl. Ins. 2: 205.

SURINAME! 2 ♂, Sipaliwini, 14.6.1963.

Described from Chapada, Brasil; further known from Kartabo, British Guiana, and from Perú (SACK).

***Volucella vitripennis* Curran**

CURRAN 1934, Bull. Amer. Mus. Nat. Hist. 66: 387.

SURINAME! 1 ♀, Kwatta, swampy forest, 27.2.1964 (Geijskes).

Described by CURRAN after 2 ♀ from Kartabo, British Guiana.

Genus *Ornidia* Lapeletier & Serville

***Ornidia aemula* (Williston) — PL : 17**

WILLISTON 1888, Trans. Amer. Ent. Soc. 15: 272 (*Volucella*).

Ornidia obesa (Fabricius) — PL : 18

FABRICIUS 1775, Syst. Ent.: 763 (*Syrphus*).

Ornidia obesoides (Giglio-Tos) — PL : 18

GIGLIO-TOS 1892, Boll. Mus. Zool. Torino 7: 4 (*Volucella*).

Subfamily ZELIMINAE

Genus **Nepias** Porter

Nepias azteca (Curran) — PL : 18

CURRAN 1941, Bull. Amer. Mus. Nat. Hist. 78: 303 (*Planes*).

Nepias palitarsis (Curran)

CURRAN 1934, Bull. Amer. Mus. Nat. Hist. 66: 404 (*Planes*).

SURINAME! 1 ♂, 1 ♀, Mapane area, K. 8, 30 and 28.5.1963.

Type-locality Kartabo, British Guiana.

Nepias smarti (Curran) — PL : 18

CURRAN 1941, Bull. Amer. Mus. Nat. Hist. 78: 302 (*Planes*).

Nepias vagans (Wiedemann)

WIEDEMANN 1830, Auss. Zweifl. Ins. 2: 101 (*Xylota*).

SURINAME! 1 ♀, Kabel, 21.10.1958; 1 ♂, 1 ♀, Mapane area, K. 8, 28/30.5.1963; 2 ♂, Jodensavanne, 13.9.1963 (Geijskes).

Described by WIEDEMANN from Brasil. Further records from British Guiana, Panamá and Perú.

Genus **Acrochordonodes** Bigot

Acrochordonodes dentipes (Fabricius) — PL : 19

FABRICIUS 1794, Ent. Syst. 4: 297 (*Syrphus*).

var. rufofemorata nov.

In the typical specimens the hind femora are black or partly black and dark brown. In the specimens of the variety the femora are clear orange. On the whole our ten specimens of this variety are a trifle smaller than the 23 specimens of the nominal form in our collection but no other differences could be found.

SURINAME! 4 ♂, 4 ♀, Paramaribo, 27/28.4.1963; 1 ♀, 28.10.1960; 1 ♀, Houttuin, 22.6.1960.

Genus **Ceriogaster** Williston

Ceriogaster arethusa Hull — PL : 19

HULL 1944, Rev. de Entom. 15: 42.

SURINAME: 1 ♀, 15.12.1959; 1 ♂, 2 ♀, 25.1.1960; 8 ♂, 6 ♀, 28.4.1963 all Paramaribo; 1 ♂, Clevia, 1.5.1963; 1 ♀, Charlesburg, 30.4.1963; 1 ♀,

Mapane area, K. 8, 28.5.1963; 1 ♀, Sipaliwini, 7.6.1963. Also 1 ♀, Blauwgrond, 27.4.1963 (Mrs. E. van der Vecht).

HULL described one male only. The ten males recorded above are quite similar to the description and they don't vary mutually.

Female. Front rather narrow above, slightly widening to level of antennae, shining, bluish black with two opaque black bands: one across the ocellar triangle, the other halfway between vertex and antennae. Lower front with a very shallow, triangular depression. Sides of face less heavily pollinose than in the male, the pollen white. Mesonotum and scutellum similar to the male. Base of abdomen less narrow, the first two segments with nearly parallel sides, third segment widening from base to apex, sides of the fourth segment evenly rounded. The red markings upon the second segment are darker red, more or less vaguely limited or sometimes absent. Third segment brassy, medially with a large, opaque black triangle. Fourth segment entirely brassy, covered with golden brown pile which may sometimes be partly or wholly lost.

In the both sexes the scutellum is opaque black with a broad, grey apical margin in which there are clearly visible minute black punctures with very short, black stubby hairs.

Length: males 8-9 mm, females 7-10 mm.

Cerogaster scutellata Curran — PL : 19

CURRAN 1934, Bull. Amer. Mus. Nat. Hist. 66: 405.

SURINAME: 2 ♂, Zanderij, 23.9.1960; 1 ♀, Mapane area, K. 8, 28.5.1963. Also 1 ♂, 1 ♀, Republiek, forest, 5 & 19.11.1963; Ma Retraite, 1 ♀, 4/6.1.1964; 1 ♀, Charlesburg, 14.1.1964; 1 ♀, Zanderij (trap), 11/14.6.1964 (Geijskes).

CURRAN described two males from Kartabo, British Guiana; the second abdominal segment should be either opaque black in the middle or "sometimes" with a pair of obscure, elongate, longitudinal reddish spots. This is also the case in *arethusa* Hull. The most important specific difference seems to be that the scutellum in CURRAN's species is yellowish pollinose with a narrow opaque black base. On the ground of this character I believe that the above females belong to *scutellata* Curran.

Beside the scutellum the female of *scutellata* differs in the frontal markings. The second opaque black band below the anterior ocellus is reduced to a spot on either side touching the eye margin; at some distance above the antennae there is another group of opaque black spots with the tendency to form one or two transverse rows. Above the antennal tubercle the front is yellow pollinose in places. Pile of the fourth abdominal segment thin and whitish yellow, not golden, the segment itself is shining greenish black. In the female of *arethusa* this segment is brassy, nearly golden.

Genus **Crepidomyia** Shannon

Crepidomyia plagiata (Wiedemann) — PL : 19

WIEDEMANN 1830, Auss. Zweifl. Ins. 2: 98 (*Xylota*).

According to SACK (1941) Perú may be added to the geographical distribution.

Subfamily ERISTALINAE

Genus *Quichuana* Knab*Quichuana aurata* (Walker) — PL : 19WALKER 1857, Trans. Ent. Soc. London (n.s.) 4: 153 (*Helophilus*).*Quichuana knabi* Shannon

SHANNON 1927, Proc. U.S. Nat. Mus. 70: 15.

SURINAME! 1 ♀, Paramaribo, Ma Retraite, swampy forest (trap), 22/24.8 1963 (P. Bolwerk).

SHANNON described a female from Beni, Bolivia. The above-mentioned female answers to the description.

Quichuana picadoi Knab — PL : 19

KNAB 1913, Ins. Insci. Mens. 1: 14.

SURINAME: 7 ♂ Paramaribo, 27.4.1963. From Geijskes: 2 ♂, 14.1.1964; 1 ♂, 3.2.1964, and 2 ♂, 4.3.1964, all from Ma Retraite, swamp forest near Paramaribo.

KNAB received the ♀ type-specimen from C. PICADO, Costa Rica, who reared the insects from epiphytic Bromeliaceae. A monograph of the genus is given by HULL (Amer. Mus. Novit. 1317).

Genus *Eristalis* Latreille*Eristalis agrorum* (Fabricius) — PL : 20FABRICIUS 1787, Mant. Ins. 2: 335 (*Syrphus*).*Eristalis albifrons* Wiedemann — PL : 20

WIEDEMANN 1830, Auss. Zweifl. Ins. 2: 189.

Eristalis argyropila Hull

HULL 1938, Ann. Carn. Mus. 27: 121, pl. 8 fig. 10.

SURINAME! 4 ♀, Sipaliwini, 7/10.6.1963; 3 ♂, 1 ♀, Raleigh Falls, Coppename River, 16.7.1963; 3 ♀, Voltz Mountain, 13/15.7.1963. Further: 1 ♀, Republiek, 30.10.1963; 2 ♀, Lelydorp (in trap), 26.5.1964 (Geijskes); 1 ♀, Wilhelmina Mts., K. 3, 5.8.1963 (S. Ligorie).

Described by HULL after one female from French Guiana, in the Carnegie Museum Collection.

In the male the eyes are in contact for a distance equal to the length of the front. Front angle acute. Hypopygium moderately large, shining black with black pile. Second abdominal segment with two distinct, round, small, yellowish red spots, which are vaguely to be seen or absent in the female. In all other respects the male is similar to the female.

Eristalis conica (Fabricius) — PL : 20FABRICIUS 1805, Syst. Antl.: 190 (*Milesia*).

Eristalis doris Curran

CURRAN 1930, Amer. Mus. Novit. 411: 20.

SURINAME! 1 ♂. 1 ♀. Sivaliwini. 13.6.1963.

Type localities: Chapada, Brasil (♂), and Rio de Janeiro (♀).

CURRAN (Amer. Mus. Nov. 411: 3) gives a Key to the American species of *Eristalis*. Couplet 25 runs as follows:

"Scutellum black pilose *doris*, n. sp."

"Disc of scutellum yellow pilose 26"

However, *doris* was described as having the disc of scutellum yellow pilose. The species falling under 26 (*erratica* Curran, *conica* F. and *scutellaris* F.) have a black pilose scutellum. It is thus clear that in couplet 25 the terms "*doris*" and "26" must be interchanged. This error is repeated in Bull. Amer. Mus. Nat. Hist. 66, 1934: 408, in couplet 26.

Eristalis erratica Curran — PL : 21

CURRAN 1930, Amer. Mus. Novit. 411: 19.

SURINAME: The single female recorded in the "Preliminary List" has now be supplemented by 1 ♂, Wilhelmina Mts., 23.8.1963 (H. Pijpers), and 1 ♂, 1 ♀, Käyser Airstrip (Pijpers, without date).

Eristalis fasciata Wiedemann — PL : 21

WIEDEMANN 1819, Zool. Mag. 3: 51.

Eristalis florea Hull — PL : 21

HULL 1925, Ohio Journal Sci. 25: 39. pl. 1 fig. 3.

Eristalis fuscipennis Macquart — PL : 21

MACQUART 1846, Dipt. Exot. Suppl. 1: 128, pl. 11 fig. 5.

This species has never been recognized since MACQUART described it from Suriname; plate 11 only shows one right wing which is wholly dark brown coloured in the copy on hand. This, however, is not consistent with MACQUART's description of the wing: "Ailes à base jaunâtre; une grande tache brune vers le milieu".

It seems not impossible that MACQUART had a female of *Eristalis obsoleta* Wd. before him. The description of *fuscipennis* fits in fairly well with the female of *obsoleta* Wd. which, moreover, is a very frequent species in Surinam.

The type-specimen was stated to be in the collection of Mr. Robyns, Brussels.

Eristalis hortorum (Fabricius) — PL : 21

FABRICIUS 1775, Syst. Ent.: 764 (*Syrphus*).

Eristalis inversa Wiedemann — PL : 21

WIEDEMANN 1830, Auss. Zweifl. Ins. 2: 161.

WIEDEMANN described only the male, from Suriname. There are two females in our collection, and these answer to the description in many respects: the antennae are black, the third segment with the lower margin scarcely dark brown; front, and a broad facial vitta, black; legs wholly black. Mesonotum opaque black, the sloping

anterior margin with five grey-brown spots, the presutural greyish fascia descends over the pleurae as a broad whitish band. Length 12 mm.

The abdominal markings differ from those of the male, but this, however, is frequently the case in the *Eristalinae*. Second segment with two large, shining blue-black side-spots, broadly separated medially; third and fourth segment with rather narrow, shining grey-blue fascia, narrowly interrupted medially.

The wings in particular are different, they can by no means be described as being brown with a hyaline apex. They are slightly infuscated, the base, and an indefinite median spot in contact with the costa, the stigma and the little cross-vein, darker brown. A conclusion must be delayed until the matching male has been found.

SURINAME: 2 ♀, mutually quite similar, Republiek, 6.5.1963, and Mapane area, K. 8, 28.5.1963.

***Eristalis langi* Curran — PL : 21**

CURRAN 1934, Bull. Amer. Mus. Nat. Hist. 66: 411.

***Eristalis mus* Curran**

CURRAN 1930, Amer. Mus. Novit. 411: 21.

SURINAME! 1 ♀, Zanderij, 24.7.1964 (Geijskes).

Type-localities: Brasil, Corumbá (♂), Chapada (♀). Also known from Argentina and México.

***Eristalis nigripes* Wiedemann**

WIEDEMANN 1830, Auss. Zweifl. Ins. 2: 165.

SURINAME! 1 ♀, Paramaribo, Cultuurtuin, 26.12.1964 (Geijskes).

WIEDEMANN has already mentioned the great resemblance of this species to *Er. vinetorum* (F.). Besides the difference indicated by WIEDEMANN, it may be noted that in *nigripes* the posterior tibiae are not ciliate, but provided with short, thin hairs. In *vinetorum* the wings are covered with microsetae anteriorly, except broadly along the veins; in *nigripes* the wings are bare, but all veins are broadly bordered with yellow. The marginal cell is a little broadened apically in *nigripes*, simple in *vinetorum*.

WILLISTON records six specimens from Rio de Janeiro, Corumbá and Uacarizal; SHANNON & AUBERTIN one specimen from Argentina, Posadas. HULL (1925) did not mention the species in his Revision of the Genus *Eristalis*.

***Eristalis obsoleta* Wiedemann — PL : 22**

WIEDEMANN 1830, Auss. Zweifl. Ins. 2: 175.

***Eristalis penaltis* Curran — PL : 22**

CURRAN 1934, Bull. Amer. Mus. Nat. Hist. 66: 412.

***Eristalis precipua* Williston**

WILLISTON 1888, Trans. Amer. Ent. Soc. 15: 280.

SURINAME! 1 ♀, Sipaliwini, 7.6.1963. Also 1 ♀, Domburg, 3.12.1963 (Geijskes).

Type-locality: Chapada, Brasil. Further known from Argentina, Perú and Chile. In author's collection 2 ♂ and 1 ♀ from Paraguay (F. SCHADE coll.). One of the latter males has been compared with the type by FLUKE.

Eristalis pygmaea Macquart — PL : 24

MACQUART 1842, Dipt. Exot. 2, 2: 54.

Eristalis rufiventris Macquart

MACQUART 1845, Dipt. Exot. Suppl. 1: 129.

SURINAME! 2 ♂, 1 ♀, Kwatta, Okrodam, 3.9.1963 (P. Bolwerk); 2 ♀, Ma Retraite, in trap, 22/24.8.1963 (Bolwerk); 2 ♂, Cultuurtuin, Paramaribo, 26.12.1964, and 1 ♂, Republiek, 14.12.1964 (Geijskes).

Described by MACQUART from Colombia. Also known from México, Honduras, Guatemala, Brasil and Argentina, according to FLUKE.

Eristalis scutellaris (Fabricius) — PL : 24

FABRICIUS 1805, Syst. Antl.: 190 (*Milesia*).

Eristalis spectabilis Hull — PL : 24

HULL 1925, Ohio Journ. Sci. 25: 289, pl. 1 fig. 2.

Eristalis vinetorum (Fabricius) — PL : 26

FABRICIUS 1798, Ent. Syst.: 652 (*Syrphus*).

Genus **Meromacrus** Rondani

Meromacrus brunneus Hull — PL : 26

HULL 1942, Amer. Mus. Novit. 1200: 9, fig. 8.

SURINAME: 1 ♂, Zorg en Hoop, Paramaribo, 15.4.1964 (J. Broekhuizen).

This male agrees exactly to HULL's description. The sexual differences excepted this male is similar to the female recorded in the Preliminary List. Without doubt they belong to the same species.

Meromacrus fucatus Hull — PL : 26

HULL 1930, Trans. Amer. Ent. Soc. 56: 143.

Meromacrus niger Sack — PL : 26

SACK 1920, Zool. Jahrb. Syst. 43: 264.

The type-localities are Bolivia and Paraguay. (The 1920-reference has been omitted in FLUKE's Catalogue just as the localities Bolivia and Perú.)

Meromacrus pratorum (Fabr.) — PL : 27

FABRICIUS 1775, Syst. Ent.: 765 (*Syrphus*).

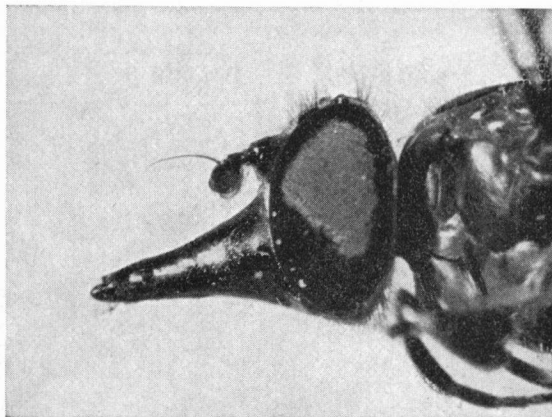


Fig. 67. *Lycastrirrhyncha quinta* Doesburg, from SURINAME, head of ♂ in side view, same specimen as in Fig. 68.

Genus *Lycastrirrhyncha* Bigot

Lycastrirrhyncha quinta Doesburg — PL : 27, 31

Fig. 67–68

VAN DOESBURG 1962, Stud. Fauna Suriname 5: 31 (♀).

The males are smaller than the females (♂ 6.5–7.5 mm, ♀ 8.0–9.5 mm snout not included), they are also more slender. The eyes are broadly separated. Front with sub-parallel sides, very slightly narrowed shortly above the antennae where a transverse carina runs from eye to eye; a broad, opaque black band lying upon this carina not reaching the anterior ocellus, its upper margin bisinuous. There are two shining spots in contact with the upper eye corners. The antennal tubercle is opaque black, remaining parts of the front are steel-blue.

Metascutum, abdomen and hypopygium mostly black; anterior corners of the first abdominal segment, and a broad, longitudinal vitta on either side of the second segment, continued on the anterior two-thirds of the third segment, reddish yellow. These two bands are broadly separated medially and leave the abdominal margins narrowly black. Fourth segment greyish black, shining with three large, opaque black spots: a large one on the middle of the base, an other one at either side transversely before the apical margin. Hind margins of third and fourth segments narrowly reddish. The first three ventral segments pale reddish with narrowly black, lateral margins. Fourth ventral segment black with reddish incisures. Abdominal pile white but brownish upon the broad black median vitta. For the rest the male is similar to the female.

Allotype ♂, Charlesburg, Paramaribo, SURINAME, 26.4.1963 (P. H. van Doesburg, Jr. coll.). Paratypes: 1 ♂, Charlesburg, 29.4.1963; 1 ♂, Paramaribo, 3.5.1963; 2 ♂, 1.3.1963 and 3 ♂, 23.5.1963, Clevia (same collector). To the females already recorded may be added 3 specimens from Charlesburg, 29.4.1963.

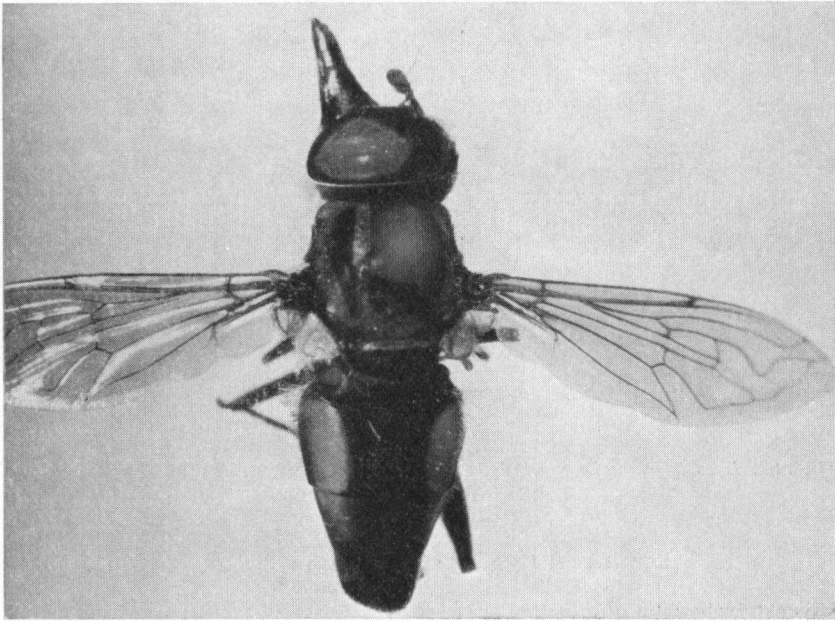


Fig. 68. *Lycastrirrhyncha quinta* Doesburg from SURINAME, ♂.

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